

## Pre-AP Geometry 3.2 Assignment Answer Key

### Proof and Perpendicular Lines

2)  $l \perp m$

3) 3) All angles are right angles;  $p \perp q$

4) 36

5) 36

6)

Reason
Given
Defn of congruent angles
Given
Linear pair postulate
Defn of supplementary angles
Substitution
Simplify/Distributive Property/Combine like terms
Division POE
Defn of a rt <.
Defn of perpendicular

7) a)  $\angle 1$  &  $\angle 2$  are supplementary

b) Defn. of supplementary.

c) Defn. of right angles.

d) Substitution

e)  $m\angle 2 = 90^\circ$

f) Defn. of right angles

8) B

9) 38

10) 90

11) 39

12) 48

$\angle 1$  &  $\angle 5$

$\angle 3$  &  $\angle 7$

13)  $\angle 2$  &  $\angle 6$

$\angle 1$  &  $\angle 5$

$\angle 4$  &  $\angle 8$

14)  $\angle 3$  &  $\angle 6$

$\angle 4$  &  $\angle 5$

15)  $\angle 1$  &  $\angle 8$

$\angle 2$  &  $\angle 7$

16)  $\angle 3$  &  $\angle 5$

$\angle 4$  &  $\angle 6$